

# SOP for Virtual Machine Deployment

## Purpose:

To provide a standardized and efficient process for deploying virtual machines (VMs) within the organization, ensuring consistency, reliability, and adherence to best practices.

## Scope:

This SOP applies to all VM deployments within the organization, regardless of the virtualization platform used.

## Responsibilities:

- IT Operations Team: Responsible for carrying out VM deployments according to this SOP.
- IT Security Team: Responsible for ensuring security compliance during VM deployments.
- Responsible Individuals: Individuals requesting VM deployments are responsible for providing accurate information and approvals.

## Procedure:

### 1. Planning and Requirements Gathering:

- Gather Requirements:
  - Determine the VM's purpose, operating system, resource needs (CPU, RAM, storage), network connectivity, and security requirements.
  - Obtain necessary approvals for software licensing and resource allocation.
- Select Template or Create New VM:
  - Choose an existing template that meets the requirements or create a new VM from scratch.
- Choose Deployment Method:
  - Select the appropriate deployment method based on the virtualization platform and environment (e.g., cloning, template deployment, manual creation).

### 2. VM Configuration:

- Resource Allocation:
  - Assign CPU, RAM, and storage resources to the VM based on its requirements and available resources.
- Network Configuration:
  - Configure network adapters, IP addresses, VLANs, and firewalls as needed.
- Storage Configuration:
  - Attach virtual disks and configure storage options (e.g., thin provisioning, eager zeroed).
- Operating System Installation:
  - If creating a new VM, install the desired operating system.
- Guest Customization:
  - Customize the VM's settings (e.g., hostname, domain membership, user accounts) as needed.
- 3. Deployment:
  - Initiate Deployment:
    - Start the deployment process using the chosen method.
  - Monitor Progress:
    - Monitor the deployment process for errors or issues.
- 4. Post-Deployment:
  - Testing and Validation:
    - Test the VM to ensure it functions as expected and meets requirements.
  - Documentation:
    - Update relevant documentation with the VM's details and configuration.
  - Handover:
    - Transfer ownership and management of the VM to the appropriate team or individual.

#### Additional Considerations:

- Security:
  - Implement appropriate security measures, including firewalls, antivirus, and intrusion detection systems.
  - Patch operating systems and applications regularly.
- Backup and Recovery:
  - Establish a regular backup schedule for VMs.
  - Have a recovery plan in place in case of VM failure or data loss.

- Monitoring and Maintenance:
  - Monitor VM performance and resource utilization.
  - Perform regular maintenance tasks, such as applying updates and patches.